THE TOY MAKER – Arvind Gupta

By Monika Gupta (*City Cheer* Magazine, March 2008)

A toy maker, a writer, a science enthusiast, an engineer, a bibliophile – these are a few ways in which people recognize Arvind Gupta and his work. His most prized possession is his jhola which contains “junk” from which he constructs dozens of toys – tone changing flutes, a writing board for the blind, an abacus, wall climbing critters, scampering mice. The toy making accompanied by stories leaves one mesmerized! Arvind Gupta has written many entertaining books which describe his toys. He has worked with the Hoshangabad Science Teaching Programme, UGC, NCERT, NBT and many other organizations for the popularization of science. His outstanding contribution in designing science teaching aids has been recognized by Unicef, Unesco etc. He currently works in the Science Centre located in the Inter-University Centre for Astronomy & Astrophysics, IUCAA, Pune

What inspired you to work on something unique like 'Toys out of scrap/junk'?

While teaching science through "activities" we realized that some of our traditional low-cost, environment friendly toys are more effective than standard laboratory fare. Today we live in a consumerist society which produces so much of junk. The idea was to use societal waste for the benefit of our children. Toys-from-Trash is a very cost-effective and joyous way of learning science.

As you have always worked upon explanation, but in a creative way. How is your idea gaining height?

I have documented all my work into low-cost books. The first book *Matchstick Models & Other Science Experiments* was translated in 13 Indian languages and

sold over half a million copies. Eklavya a renowned Educational NGO in Madhya Pradesh still prints this book in Hindi for just Rs 15. I have made over a 100 films to popularize these ideas. Now anyone across the world can download all my books for free from my website http://arvindguptatoys.com

Being alumni of IIT Kanpur, you could have opted something else.
I worked in TELCO, Pune for a few years but soon realized that I was not born to make trucks. My heart lay in making science fun for children, especially the poor.

Why did you choose to do something which most people don't do?
I am a product of the seventies. The political slogan in those days was
Go to the people,
Love them, live with them
Start from what they know.
Build on what they have.
Like many others, I just responded to a genuine need of my time.

What categories of toys you have made and using what items?
I use old rubber slippers, newspapers, ball pen refills, tetrapaks, cycle tubes, matchsticks, matchboxes, plastic straws, thread, ice-cream sticks and just about all kinds of discarded junk. We make things which fly, spin, jump, hop, and make sound, a pump to inflate a balloon and a battery motor which actually runs. We have a large repertoire of over 250 science toys and experiments out of low-cost materials.

What more should be done in order to make learning easier and interesting?
Our system emphasizes rote learning – mugging up of definitions, formula without understanding. Most learning

takes place from the "concrete' to the "abstract". If children could see a science concept in a self-made toy they are likely to understand it better.

Books and Toys are different altogether, how do you manage doing both?
As I design simple toys I put them into low-cost books so that they can reach our children. These books are so cheap that no commercial bookshop ever stocks them. But still they sell. I have seen the dire poverty of good children's books in Hindi. So, I've over a hundred books on Education, Peace, Environment, Science, great children's books into Hindi.

How do you want to take your mission to the next level?
All that I do – write, translate, films, photos of Toys-from-Trash I put them on my website for free downloads. Everyday 150-200 children and teachers across the world access the website. In Jan 2008 alone 52,000 books were downloaded from my website. In a country with no public libraries, this is what an ordinary citizen can do.

Do you also hold workshops for creative learning? Where?
Over the years I have conducted workshops in over 1500 schools in our country. But for the past four years I work in a Children's Science Centre in Pune. Last year we conducted over 200 workshops with children and teachers.

Your reflections and changes in your work from the past 20 years?
There has been a sea-change. The chalk-and-talk method is passé. Learning through activities is the "buzz" word.

Since your interaction with children and their education has been at large, what behavioral changes have you noticed comparing the era of 80s/90s and the present one?

Today children have more options / distractions then they had earlier. So, to capture their imaginations you have to strive harder. Children still remain the oldest proletariat – at the receiving end of the entire adult world. This had not changed.

Your most challenging project and the most satisfying (acclaimed) project till now?
To set up a good website and to make the best educational resources available for free.

What does 'Cheers' mean to you?
It means love and peace.

Message for the educationists, teachers, parents, children of today?
Distrust experts opinions, have faith in your own gut-feelings.